

REMARKS

The Official Action mailed May 2, 2005, has been received and its contents carefully noted. This response is filed within three months of the mailing date of the Official Action and therefore is believed to be timely without extension of time. Accordingly, the Applicant respectfully submits that this response is being timely filed.

The Applicant notes with appreciation the consideration of the Information Disclosure Statements filed on March 29, 2004.

Claims 1-15 were pending in the present application prior to the above amendment. Claims 8, 9, 14 and 15 have been canceled, independent claims 1 and 11 have been amended to better recite the features of the present invention, dependent claims 3, 10 and 13 have been amended for clarity, and new claims 16-29 have been added to recite additional protection to which the Applicant is entitled. The Applicant notes with appreciation the indication of the allowability of claim 7 (page 7, Paper No. 1204). Accordingly, claims 1-7, 10-13 and 16-29 are now pending in the present application, of which claims 1, 11, 16 and 23 are independent. For the reasons set forth in detail below, all claims are believed to be in condition for allowance. Favorable reconsideration is requested.

Paragraph 1 of the Official Action objects to the title as not descriptive. In response, the title has been changed to "DEVICE FOR INSPECTING ELEMENT SUBSTRATES AND METHOD OF INSPECTING ELEMENT SUBSTRATES USING ELECTROMAGNETIC WAVES." The Applicant respectfully submits that the amended title is descriptive. Reconsideration of the objection is requested.

Paragraph 2 of the Official Action objects to the Abstract of the disclosure as not descriptive. In response, the Abstract has been amended as shown in the attached. The Applicant respectfully submits that the amended abstract is descriptive. Reconsideration of the objection is requested.

Paragraph 5 of the Official Action objects to the drawings asserting that some features of claims 8 and 9 are not shown. In response, claims 8 and 9 have been canceled; therefore, the objection is moot.

Paragraph 6 of the Official Action objects to dependent claims 3, 5, 6, 8-10 and 13-15. Specifically, the Official Action objects to claims 3, 10 and 13 asserting that "it is unclear how an electric current is interrelated and associated with the ionized gas ... where and how the electric current is formed ... [and] what 'means for measuring an electric current between the opposing detector substrate and the element substrate' represents" (pages 4 and 5, Paper No. 1204). In response, claims 3, 10 and 13 have been amended to recite measuring an electric current (a current) between an opposing detector substrate and an element substrate through an ionized gas. Also, in claim 3, "means" has been changed to "an ammeter." The Applicant respectfully submits that claims 3, 10 and 13 are clear as amended.

The Official Action objects to claim 5 asserting that "it is unclear how the opposing detector electrode has an effect on the transmission of electromagnetic waves or X-rays of a wavelength of 0.01 to 100 nm" and that it "appears that the opposing detector electrode has nothing to do with the electromagnetic waves transmission at all" (page 5, *Id.*). The Applicant respectfully disagrees and traverses the above-referenced assertions in the Official Action. Claim 5 recites "wherein the opposing detector electrode is made of a conductor that permits the transmission of electromagnetic waves or X-rays of a wavelength of 0.01 to 100 nm." The Applicant respectfully submits that the electromagnetic waves of the present invention are irradiated to a gas provided between the element substrate and the opposing detector substrate to ionize the gas. Therefore, in order to supply the gas provided between the element substrate and the opposing detector substrate with the electromagnetic waves from a side of the opposing detector electrode provided over the opposing detector substrate, it is preferable that the opposing detector electrode permits the transmission of electromagnetic waves or X-rays. The function of the opposing detector electrode with respect to the transmission

of electromagnetic waves is clearly claimed. Therefore, the Applicant respectfully submits that claim 5 is clear.

The Official Action objects to claims 8, 9, 14 and 15 (Id.). In response, claims 8, 9, 14 and 14 have been canceled; therefore, the objections are moot.

Accordingly, reconsideration and withdrawal of the objections to claims 3, 5, 6, 8-10 and 13-15 are in order and respectfully requested.

Paragraph 8 of the Official Action rejects claims 1, 4 and 11 as anticipated by U.S. Patent No. 5,179,279 to Millard et al. The Applicant respectfully submits that an anticipation rejection cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP § 2131, to establish an anticipation rejection, each and every element as set forth in the claim must be described either expressly or inherently in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Independent claims 1 and 11 have been amended to recite that an opposing detector substrate has a TFT and an electrode connected to the TFT. The Applicant respectfully submits that Millard does not teach the above-referenced features of the present invention, either explicitly or inherently.

Since Millard does not teach all the elements of the independent claims, either explicitly or inherently, an anticipation rejection cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 are in order and respectfully requested.

Paragraph 10 of the Official Action rejects claims 2 and 12 as obvious based on the combination of Millard and U.S. Patent No. 5,680,056 to Ito et al. The Applicant respectfully submits that a *prima facie* case of obviousness cannot be maintained against the independent claims of the present application, as amended.

As stated in MPEP §§ 2142-2143.01, to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or

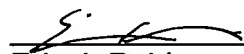
motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either explicitly or implicitly in the references themselves or in the knowledge generally available to one of ordinary skill in the art. "The test for an implicit showing is what the combined teachings, knowledge of one of ordinary skill in the art, and the nature of the problem to be solved as a whole would have suggested to those of ordinary skill in the art." In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). See also In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

Please incorporate the arguments above with respect to the deficiencies in Millard. Ito does not cure the deficiencies in Millard. The Official Action relies on Ito to allegedly teach "to provide the laser source of Millard et al with a laser wavelength over one micrometer and below 300 nanometers" (page 7, Paper No. 1204). However, Millard and Ito, either alone or in combination, do not teach or suggest that an opposing detector substrate has a TFT and an electrode connected to the TFT. Since Millard and Ito do not teach or suggest all the claim limitations, a *prima facie* case of obviousness cannot be maintained. Accordingly, reconsideration and withdrawal of the rejections under 35 U.S.C. § 103(a) are in order and respectfully requested.

New claims 16-29 have been added to recite additional protection to which the Applicant is entitled. For the reasons stated above, the Applicant respectfully submits that new claims 16-29 are in condition for allowance.

Should the Examiner believe that anything further would be desirable to place this application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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